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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,940	07/29/2003	Charles Hartman	200310736-1	9039

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EXAMINER

DALEY, CHRISTOPHER ANTHONY

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,940

Applicant(s)

HARTMAN ET AL.

Examiner

Christopher A. Daley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 9 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Neal et al (US6237057) hereinafter Neal.

3. As to claim 1, Neal discloses a configurable I/O bus architecture, comprising:

a system bus interface device; (Neal teaches in figure 3 of a system bus interface device, system host bridge, 202)

first and second I/O bus interface devices; (Neal teaches of said devices that would be slotted in PCI connector slot a0, (304 of figure 3) and PCI connector slot b0 306 of said figure, which would comprise interface devices)

first and second intermediate buses; (Neal teaches of intermediate buses 308 and 309 of figure 3)

a switching device; (Neal teaches of switch device 302 of figure 3)

and a steering signal; wherein: the first intermediate bus couples the system bus interface device to the first I/O bus interface device; (Neal teaches of steering signal, SW Enables 316 of figure 3)

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the second intermediate bus couples the system bus interface device to the switching device; (Neal teaches that the second intermediate bus 308 is coupled to the system bus interface device 202 by the switching device 302)

and the switching device is operable to couple the second intermediate bus either to the first or to the second I/O bus interface device responsive to the steering signal.

(Neal teaches that the switching device 302 would couple the first I/O bus interface device in slot a0 when the switch is in the on position, and couple the second I/O interface device 306 to the system bus interface, when said switch is turned on, COL. 7, lines 13 - 29).

4. As to claim 2, Neal discloses the configurable I/O bus architecture: further comprising at least a first signal indicating whether an I/O device is coupled to the second I/O bus interface device; (Neal teaches in figure 3 of the presence of GNT signals that would indicate I/O device coupling, Col. 7, lines 30 – 40. Neal also teaches of OFFL signals that indicate card status, COL. 8, lines 1 – 5)

and wherein the steering signal is derived from the first signal such that the steering signal assumes a first state when the I/O device is so coupled and a second state when the I/O device is not so coupled. (Neal teaches of bus switch control logic 208 of figure 3. The steering signal is derived from the first signal as it is coupled into the bus control logic, COL. 7, lines 60 – 67).

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5. As to claim 3, Neal discloses the configurable I/O bus architecture of claim 2, wherein:

the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples the second intermediate bus to the first I/O bus interface device when the steering signal assumes the second state. (Neal teaches that the switching device 302 would couple the second I/O interface device 306 to the system bus interface, when 328 is enabled by switch control 316 that is derived from the first signal state as stated above).

6. As to claim 4, Neal discloses the configurable I/O bus architecture:

further comprising a second signal indicating whether the I/O device is coupled to the second I/O bus interface device; and wherein the steering signal is derived from both the first and second signals using a logic gate. (Neal teaches of grant signals and off signals generated in bus switch control logic 208 of figure 3. The appropriate gnt signal would be generated to indicate coupling of second I/O device to the main bus system, COL. 8, lines 1 – 15).

7. As to claim 9, Neal discloses the configurable I/O bus architecture of claim 1:

wherein the first and second intermediate buses are rope buses. (Neal teaches of the coupling of devices by the intermediate buses serving as rope buses, COL. 7, lines 13 – 35).

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neal in view of Alexander et al (US6510529), hereinafter Alexander.

10. As to claim 5,7 – 8, Neal does not disclose a hand-operated switch for an I/O bus; (However, Alexander teaches of a hand-operated switch 104 controlled by a panel button that will enable/disable the coupling of PCI bridge 108 to system controller 102. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Alexander into Neal as Alexander's teaching provides a human safety over-ride, when a fault condition arises COL. 5, lines 43 – 67).

11. As to claim 6, Neal discloses the configurable I/O bus architecture of claim 5, wherein: the switching device couples the second intermediate bus to the second I/O bus interface device when the steering signal assumes the first state, and couples the second intermediate bus to the first I/O bus interface device when the steering signal assumes the second state. (Neal teaches that the switching device 302 would couple the second I/O interface device 306 to the system bus interface, when 328 is enabled by switch control 316 that is derived from the first signal state as stated above).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571 272 3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CAD
5/23/2005



**TIM VO
PRIMARY EXAMINER**